Coconino National Forest Plan Revision

Semi-desert Grasslands

General description

- These low elevation semi-arid grasslands occur on the Red Rocks Ranger District and are bounded by Desert Communities at lower elevations and Pinyon Juniper Evergreen Shrub at higher elevations. They cover about 8 percent of the Coconino NF and contain numerous roads and private land parcels. They adjoin several communities including Camp Verde, Cottonwood, and Cornville.

- Soils in this PNVT are generally not suited for intensive disturbance because they are shallow, clayey, have high amounts of surface rock, and have low bearing strength.

Desired Conditions (landscape scale: 10,000 + acres)

- Semi-desert grassland communities are open and connected grasslands punctuated by groves of trees and shrubs. Predominant species are perennial native grasses. The moderate to dense herbacous cover includes annual and perennial desert grasses and forbs, succulent species, shrubs, and some herbaceous cover of annuals. Cool and warm season species are present at varying heights. Tree cover is less than 10 percent; shrub cover is less than 10 percent. Tree and shrub species include turbinella oak, catclaw mimosa, crucifixion thorn, Utah and one seed juniper. All age classes are present. Herbaceous vegetative cover is maintained to prevent erosion. Plant basal area ranges from 5 to 20 percent and plant litter occupies 10 to 15 percent of the soil surface depending on soil type.

- Invasive plants do not occur at levels that disrupt ecological functioning.

- Plants used for ethnobotanical[1] purposes thrive here. There are *[number to be determined]* plants known to be traditionally used by tribes.

- Floods and fire play a natural role. Grasses or understory species carry fire and maintain the natural fire regime (>75 percent overstory mortality or herbaceous top kill).

- Soil compaction or accelerated erosion is uncommon and *[description about aiding soil functioning forthcoming]*. The ability of soil to maintain resource values and sustain outputs is high *[sentence will be reworded to reflect desired soil characteristics]*. Biological soil crusts are maintained. These are crusts of soil particles formed by algae, mosses, and lichens in arid areas and are important because they hold the soil in place, help retain moisture, and improve soil nutrients by fixing atmospheric nitrogen.

Desired Conditions (mid-scale: 100 to 1,000 acres)

- Multiple seral stages of native vegetation are present.

[1] Define ethnobotanical

Desired Conditions (fine-scale: ≤ 10acres)

- The School house area is unique because *[rationale forthcoming]*. Desired conditions for the School house area relative to species such as *[species to be determined]*.

- The Tent Rocks area is one of the only areas on the Forest to have common sotol, a plant more common in the Chihuahuan desert and one that is important to American Indian communities. Common sotol is represented by a variety of age classes and regenerating successfully.

Objectives

- Allow or introduce *[determine number of]* acres of wildland fire over 10 years following plan approval to increase and maintain the area occupied by grasses and forbs while decreasing the area occupied by shrubs and trees.

- Treat 2,000 to 5,000 acres to reduce the density and canopy cover of trees and shrubs and increase the grassland acres to move towards the desired condition of less than 10 percent canopy cover of trees and shrubs.

Guidelines

- Tree overstory removal should be conducted in a manner that minimizes subsequent competition by shrubs.

- Ground disturbing activities should occur when low-bearing strength, high clay soils are dry to minimize soil compaction, displacement and trafficability problems.

Management Approach – *[none currently identified]*